

REMARKS

Claims 1 and 3-19 have been provisionally rejected under the judicially created doctrine of double patenting over claims 18-19, 21-23, and 25-36 of copending Application No. 09/662,035.

The Examiner's rejection is respectfully traversed.

The Applicants do not agree with the Examiner's rejection. The present application is directed to selecting an appropriate catalyst and performing specific processing steps, which are responsible for improving the present process. Additionally, in the present application there is marked difference in choosing the raw material catalyst and performing the processing steps, which improve the present process. Additionally, the selected catalyst has a different ligand attached to the palladium than that of the co-pending application.

The specification has been objected to due to a minor spelling error. Please note that the spelling error has been corrected thereby obviating the objection.

Claim 1 has been rejected under 35 U.S.C. §112, first and second paragraphs. Please note that the claim has been amended to obviate these rejections.

Claims 1-20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Elango et al., U.S. Patent No. 4,981,995 in view of Chaudhari et al., U.S. Patent No. 6,093,847.

The Examiner's rejection is respectfully traversed.

As now claimed, the Applicants invention is directed to a process for the preparation of 2-aryl propionic acid. The process includes the steps of reacting an aryl compound and a palladium catalyst in an organic solvent, in a carbon monoxide atmosphere under homogenous

conditions at a temperature ranging between 30 to 130°C for a period ranging between 0.3 to 4 hours at pressures ranging from 50 to 1500 psig. The process further includes cooling the reaction mixture to an ambient temperature, flushing the reaction vessel with an inert gas, removing the solvent and separating the catalyst, and isolating 2-aryl propionic acid having the following formula.

The catalyst used in the present invention is different than that used in the prior art, and does not contain a semilabile anionic chelating ligand to enhance the efficacy of the catalyst's performance in the adopted process as taught in Chaudhary et al. '847. Additionally, the catalyst used in the present invention is also different than that used in Elango et al. '995 because it does not contain any monodentate phosphine ligand. The ligand of the catalyst used in Elango et al.'s process is different from the ligands of the catalyst of the present invention. The chemical nature of the ligand incorporated in the catalyst plays an important role in deciding the rate of the reaction, reactivity of the catalyst, reaction conditions to be susceptible to the oxidation of the substrate and other reactants used is minimized, resulting in a clearer purer end product having a higher yield. Additionally, there is less possibility of formation of an undesirable by-products, which reduces the amount of time in auxiliary purification process to obtain the desired end product. Additionally, in the Applicants' invention, the reaction vessel is flushed with an inert gas after the reaction has been completed. Elango et al., on the other hand, teaches a step of flushing the reaction vessel with an inert gas before the initiation of the reaction process. The Examiner has stated that merely reversing the steps in a multi-step process is not a patentable modification absent unexpected or unobvious results. The Applicants do not agree with this statement because with chemical reactions, the precise

steps chosen and followed will affect the chemical reactions, the yields, the purity, etc. Thus, the order of the steps plays a large part of obtaining the desired results.

Elango et al's process is directed to a reaction which takes place at least 500 psig, whereas the Applicants' invention uses the pressure as low as 50 psig. There is no prior discussion to reducing the pressure to 50 psig to obtain better results for the same end product.

The Applicants' invention also discloses a range of water being 1 to 6% (v/v) of the total mixture of the present invention. None of the prior art suggests keeping the water at a particular concentration or within a particular concentration range will lead to optimal results.

One "cannot pick and choose among individual elements of assorted prior art references to recreate the claimed invention." Smithkline Diagnostics, Inc. v. Helene Laboratories Corp., 8 USPQ2d 1468, 1475 (Fed. Cir. 1988). Just because the prior art could be modified to form the claimed invention, "unless the prior art suggested the modification," the modification would not have been obvious. In Re Laskowski, 10 USPQ2d 1397, 1398 (Fed. Cir. 1989). "It is insufficient that the prior art disclosed the components of the patent device, either separately or used in other combination; there must be some teaching, suggestion, or incentive to make the combination made by the inventor." Northern Telecom Inc. v. Datapoint Corp., 15 USQP2d 1312, 1323 (Fed. Cir. 1990). There is no suggestion in any of the references for the proposed combination. As the CAFC stated in

ACS Hospital Systems Inc. v. Montefiore Hospital, 221 USPQ 929,933 (1984):

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teachings or suggestion supporting the combination. Under Section 103, teachings of references can be combined only if there is some suggestion or incentive to do so.

The field of chemical reactions offers a lot of challenges. One can not simply

combine two pieces of prior art and simply say that the combination of processes will produce the desired results.

Additionally, in this application, the catalyst is distinct from that of the prior art. Also the essential parameters are distinct from the prior art in that none of the references alone or in combination provide any suggestion to modify the features in the manner of the instant application to achieve the desired results.

In view of the foregoing, the Applicants contend that the amended claims and the claims dependent therefrom are in proper form. Applicants also respectfully contend that the teachings of Elango et al. '995 in view of Chaudhari et al. '847 do not establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a). Thus, claims 1, 2 and 8-20 are considered to be patently distinguishable over the prior art of record.

The application is now considered to be in condition for allowance, and an early indication of same is earnestly solicited.

Respectfully submitted,



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